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ABSTRACT

Over the past five years, many states have modified their systems for providing aid to local school districts for current operating expenses, but few changes have taken place in states' support of local districts' capital outlay expenditures. However, the issues surrounding capital expenditures are somewhat different from those involved in current expenditures. The purpose of this booklet is to document both the similarities and differences. Section 1 outlines the magnitude of capital need. Section 2 describes current systems of state support for capital outlay and debt service. Section 3 discusses important problems in state support for capital outlay. Section 4 examines several states to ascertain the impact of different support systems on capital expenditures. Section 5 summarizes the booklet and examines further alternatives for state provision of educational facilities. (Author/JG)

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SYSTEMS OF STATE SUPPORT FOR SCHOOL DISTRICT CAPITAL EXPENDITURES

Issues Related to Capital Outlay and Debt Service

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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Report No. F76-8

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Additional copies of this report may be obtained from the Education Finance Center.

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FOREWORD

This publication is one of a series of school finance policy studies that the National Institute of Education (NIE/DHEW) is supporting at the ECS Education Finance Center. It draws upon the center's technical assistance activities with state legislatures and governors, as well as its demonstrated knowledge in this important field. NIE's sponsorship of this work is based on our conviction that the major burden for school finance reform now falls on the nation's legislators and governors and that "goal oriented" research of this kind will lead to a more informed and productive debate on the subject of school finance reform.

The emergence of this key role for state legislators and governors is the product of a series of important and far reaching court decisions. Beginning with the Serrano decision in California, a number of state courts have directed state legislators and governors to reconstruct the ways in which education resources are raised and distributed. In light of this state focus, it is particularly appropriate that ECS undertake research of this kind.

We at NIE hope this publication will serve the needs of legislators, governors, state and local education officials and interested citizens and thereby assist in the development and implementation of more equitable and effective systems of school finance.

Denis P. Doyle
Chief, School Finance and Organization
National Institute of Education

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INTRODUCTION

During the 1970s states have significantly changed the methods by which they allocate funds to local school districts. A variety of distributional schemes now attempt to alleviate many of the interdistrict expenditure per pupil differences that have resulted from property wealth disparities among school districts not equalized by state general aid programs for education. Much of the impetus for such reform was prompted by legal actions in which the issue to be decided was whether a state's system of local support violated the U.S. Constitution. Even after the 1973 U.S. Supreme Court *Rodriguez* decision, however, which eliminated the U.S. Constitution as a basis for challenging state school aid provisions, states have continued to modify their systems of local district support. Recent changes have been made in many states in response to state legislative initiative and to state-level legal actions. The recent state supreme court decisions in California and Connecticut should provide additional stimulus for state-level school-funding changes.

However, almost all of the reforms of school finance laws have affected state aids to local district expenditures for current operating expenses. Over the past five years, few changes have taken place in states' support of local district capital-outlay expenditures. In fact, none of the changes that have occurred in state systems of capital support was required by legal action.

At least two court tests of state school finance programs have included references to capital-outlay support. In 1972, an Arizona state court noted that "funds for capital improvements for school districts are even more closely tied to district wealth than are funds for operating expenses. The state and county make no contribution whatever to the costs of capital improvements. The capability of a school district to raise money by bond issues is a function of its total assessed valuation."[1] While the decision in this case was eventually overturned by the Arizona Supreme Court, the state supreme court in New Jersey upheld a lower-court decision overthrowing the state's system of school finance. That court, in ruling that New Jersey's system of financing local current expenditures violated the state constitution, claimed that "the state's obligation includes as well the capital expenditures without which the required educational opportunity could not be provided."[2] In its recent decision in *Serrano*, the California Supreme Court noted that disparities in district wealth are also felt in capital outlay, primarily through the permissive over-

[1] *Hollins v. Shofstall*, Superior Court of Arizona, 1972.

[2] *Robinson v. Cahill*, Supreme Court of New Jersey, 1973. It should be noted

ride taxes currently authorized for the repayment of bonded indebtedness.

The issues involved in a state's support of local district current expenditures are, to oversimplify, similar to those that affect the distribution of state funds in support of local district capital expenditures. In each case, local districts have taxable wealth available, generally in the form of property value. The property wealth available per pupil may differ among districts. In the case of capital outlay, the need for facilities also varies among school districts, which differ greatly in wealth and need, therefore incurring dissimilar burdens in meeting their building requirements. The current patterns of state support for local capital outlay, in most cases, do little to alleviate such differences among local districts. However, upon reflection, the issues surrounding capital expenditures are somewhat different from those involved in current expenditures. The purpose of this booklet is to document both these similarities and differences. Section I outlines the magnitude of capital need. In Section II, current systems of state support for capital outlay and debt service will be described. Important problems in state support for capital outlay are discussed in Section III. Section IV examines several states to ascertain the impact of different support systems on capital expenditures. Finally, Section V summarizes the report and examines further alternatives for state provision of educational facilities.

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that New Jersey has implemented an equalization plan, acceptable to the court until further study, that includes equalization of capital outlay and debt service expenditures, up to a level of capital-outlay expenditure not to exceed 1.5 percent of the sum of the capital outlay and current operating expenditure budgets.

I. THE MAGNITUDE OF CAPITAL NEEDS

While small in comparison to all expenditures for elementary/secondary school current operations, the annual cost of capital outlay and debt service is significant. Between the early 1950s and the late 1960s, the volume of capital-outlay expenditures rose from $1 billion to $4.5 billion annually. During that same period, the amount spent on interest costs increased from $100 million to $1.3 billion.[3] At the end of the 1971-72 school year, total bonded and nonbonded indebtedness of public schools exceeded $34.7 billion.[4] For the school year 1975-76, the investment in capital outlay was $5.5 billion, while interest payments were $1.9 billion.[5] In 1975-76, current expenditures per pupil were approximately $1280, while capital-outlay and debt service expenditures were $165 per pupil.[6] Thus, capital expenditures accounted for nearly 11.5 percent of all expenditures for elementary/secondary education last year.

Recently much attention has been paid to declining enrollments and the implications for financing education. Between 1963 and 1973, public elementary school enrollments grew from 25.8 million students to 26.4 million students, but these enrollments will probably drop significantly to 24.2 million students by 1979, rising again to 25.0 million students by 1983. The number of public secondary school students similarly expanded between 1963 and 1973 from 14.4 million to 19.0 million, although it is expected that by 1983 there will be a decline to 16.0 million secondary students.[7] Although the

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[3] William R. Wilkerson, *Problems and Issues of Fiscal Neutrality in Financing School Construction* (Washington, D.C.: U.S. Office of Health, Education and Welfare, Bureau of Elementary and Secondary Education, 1973), p. 7.

[4] U.S. Department of Health, Education and Welfare, National Center for Education Statistics, *Statistics of State School Systems, 1971-72* (Washington, D.C.: Government Printing Office, 1975), Table 45, p. 71.

[5] National Education Association (NEA), *Estimates of School Statistics, 1975-76* (Washington, D.C.: NEA, 1976), pp. 19-20.

[6] Current expenditures per pupil are calculated by dividing total current expenditures, 1975-76, by total fall enrollment, 1975-76. The source of these figures is the National Education Association's *Estimates of School Statistics, 1975-76.* Current expenditures are estimated on page 18 and enrollment is estimated on page 8 of that publication. Capital-outlay and debt service expenditures were calculated by dividing estimated total capital-outlay and debt service expenditures by total fall enrollment.

[7] Kenneth A. Simon and Martin M. Frankel, *Projections of Education Statistics to 1983-84,* U.S. Department of Health, Education and Welfare, National Center for Education Statistics (Washington, D.C.: Government Printing Office, 1975), Table 4, p. 21.

decline in enrollments may retard the increase in annual expenditures for capital projects, the need to anticipate population shifts and to renovate older facilities will require a large volume of capital investment. Although there was a three percent decline in enrollment between the fall of 1970 and the fall of 1975, the distribution was not similar across the states. While nine states declined more than five percent in enrollment during that period, five states had increases in enrollment greater than five percent.[8] In urban centers, in particular, outdated facilities greatly require renovation. Many of the structures currently used in central cities were built during the peak construction period of the early 1920s and lack libraries, cafeterias, gymnasiums, playing fields, or multipurpose space. Their design inhibits the implementation of innovative educational programs.[9]

The capital-outlay project of the National Education Finance Project (NEFP) showed that during the 1960s only one-half of the 70,000 classrooms constructed annually were related to enrollment increases. Projections for the 1970s indicated that, while the annual volume of classroom needs would remain steady, an even larger proportion of new classrooms would be required to accommodate demographic changes and to meet the facilities requirements of new education programs.[10] In order to eliminate inadequate facilities by 1980, the NEFP study estimated that 123,000 classrooms would need to be built annually.[11] This enormous number of classroom units, combined with the increase in the cost per unit, which rose from an average of $53,000 in 1968 to $87,000 in 1973,[12] implied that an annual expenditure in excess of $10 billion might be expected during the 1970s. If this amount were raised in annual bond issues and payment were deferred to the future, the cost would also be affected by increased interest rates, which have accompanied the rise in building costs. Interest rates rose, on average, from 2.88 percent in 1964 to 4.53 percent in 1973 for AAA rated bonds and from 3.80 percent to 5.17 percent in the same period for BA rated bonds.[13]

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[8] Allan Odden and Phillip Vincent, *The Fiscal Impacts of Declining Enrollments: A Study of Declining Enrollments in Four States — Michigan, Missouri, South Dakota and Washington* (Denver, Colo.: Education Commission of the States, 1976), p. 1.

[9] Raymond C. Hummel and John M. Nagle, *Urban Education in America* (New York: Oxford University Press, 1973), pp. 181-184.

[10] William R. Wilkerson, *Problems and Issues of Fiscal Neutrality in Financing School Construction*, p. 9.

[11] William R. Wilkerson, *Problems and Issues of Fiscal Neutrality in Financing School Construction*, p. 9.

[12] From a cost-of-building index published in *School Management*, Vol. 17, No. 6, June-July 1973, p. 12.

[13] Irene A. King, *Bond Sales for Public School Purposes, 1972-73*, U.S. Department of Health, Education and Welfare, National Center for Educational Statistics (Washington, D.C.: Government Printing Office, 1974), Table 3, p. 4.

If the $10 billion figure is an approximation of the annual cost of needed facilities, the volume of construction has not been sufficiently high to meet that demand. From March 1974 to March 1975, $7.3 billion was spent on education construction projects by state and local governments, representing a nine percent increase over similar expenditures for the previous year.[14] These figures include all education projects, both elementary/secondary and postsecondary and while they do not involve federal contributions, that source of revenue for school construction has been small. In 1971-72, during a peak growth period, federal funds accounted for one percent of those allocated for elementary/secondary capital projects.[15] A conservative estimate, therefore, would indicate that needed construction activity was about half of its projected level.

Since the majority of funds for capital projects are raised through bond sales, it is appropriate to examine recent changes in the rate of bond sale approvals, an indicator of the willingness of local citizens to provide facilities for their school districts. Between 1964 and 1974 a notable reluctance of voters to approve bond sales was apparent. In 1964, 2071 bond elections were held and 72.5 percent of these, 1501 bond issues, were approved. In that same year $2.6 billion was sought for capital projects while $1.9 billion was sanctioned. In 1974, 1386 elections were held and 56.2 percent, 779 issues, were approved. Approximately $2.2 billion of the almost $4.1 billion sought was authorized.[16] Thus, between 1964 and 1974 bond elections declined by 33.1 percent while bond issues approved decreased by 48.1 percent. The amount of funds sought similarly rose by 57.7 percent between 1964 and 1974 while the amount actually issued only increased by 15.8 percent. Although these figures reflect escalating building requirements (assuming that the magnitude of bonds sought is a good indicator of it), they mask the even lower approval rates for several intermediate years that created an even greater need for future facilities.[17]

Construction activity has not kept pace with the demand for facil-

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[14] U.S. Department of Commerce, Bureau of the Census, *Construction Expenditures of State and Local Governments, January to March 1975* (Washington, D.C.: Social and Economic Statistics Administration, 1975), p. 3.

[15] U.S. Department of Health, Education and Welfare, National Center for Education Statistics, *Statistics of State School Systems, 1971-72* (Washington, D.C.: Government Printing Office, 1975), Table 43, p. 69.

[16] Irene A. King and Richard Barr, *Bond Sales for Public School Purposes, 1973-74*, U.S. Department of Health, Education and Welfare, National Center for Education Statistics (Washington, D.C.: Government Printing Office, 1975), Tables 1 and 2, p. 2.

[17] Irene A. King and Richard Barr, *Bond Sales for Public School Purposes, 1973-74*. Between 1969 and 1972, less than 50 percent of the dollar value of bond sales were approved, with a low of 41.4 percent in 1971. In that year, 46.7 percent of the number of elections held resulted in approval of bond issues.

ities. Even in an era of declining enrollments, the need for new or improved facilities has grown, while the cost of providing them has escalated due to increased base costs and the interest rates applied to deferred payments. Long-term enrollment declines will alleviate the absolute level of the problem, although shifts in population in the country may demand continued expansion of facilities in some regions. Improvements in buildings, which have not been made during the era of bond rejections, will be required particularly in the central cities.

II. STATE PATTERNS OF SUPPORT FOR SCHOOL DISTRICT CAPITAL EXPENDITURES

Thirty-five states provide support through five primary mechanisms for local school district capital expenditures. Table 1 displays the pattern of support within those states. It should be noted that some states employ more than one pattern and will be found in more than one column of the table. The 15 states that currently provide no support for capital expenditures are also indicated in column 6 of Table 1.

Three states attempt to provide complete support for capital expenditures, assuming both the costs of capital outlay and debt service. In both Florida and Maryland such programs have not been fully funded and either local districts have contributed revenues to meet their capital needs or they have not been met. Also, the costs associated with site purchase are not eligible for state reimbursement in Maryland. Hawaii remains the only state that fully assumes the cost of school erection that it deems essential. Even in Hawaii, however, local districts may supplement state revenues for school construction. The 1968 state law allowing such local participation replaced a 1955 law, which prohibited counties from spending local revenues for planning, constructing, improving or maintaining public school facilities and grounds.[18]

Several states share the cost of approved school construction with local districts by reimbursing them for a portion of their expenditures. These states, indicated in column 2 of Table 1, generally provide approximately half of all costs incurred, although interest costs are not eligible for reimbursement in New Hampshire. The proportion of costs that will be paid may be related to the type of facility being constructed, for example, special education versus regular classroom. Some states distinguish between new construction and renovation and share different proportions of cost accordingly. In most cases, a maximum state share for project costs is specified. It is interesting that states following this pattern tend to be Northeastern states.

A number of states, typically located in the Southeast, provide support for capital construction through flat grants. While most of these states use pupils or pupil attendance figures as the unit of reimbursement, Georgia funds its local districts on the basis of square footage per ADA. In most of these states, funds are allocated only for approved projects actually under way, although funds may be

[18] Act 38, Session Laws of Hawaii, 1968 was approved on May 7, 1968 and was codified as Paragraph 1, Section 27-1, *Hawaii Revised Statutes*.

Table 1

Patterns of State Support for Capital Outlay and Debt Service Among the Fifty States, 1975-76

(1) Full State Assumption*	(2) State/Local Sharing**	(3) State Flat Grant	(4) State Equalizing Grant***	(5) State Loans****	(6) No State Participation
Florida District may supplement up to 6 mills.	**Alaska** 50%	**Alabama** Per teacher unit	**Illinois** Share equals district assessed valuation / assessed valuation of district at 90% (m/n = .2, max = .7)	**Arkansas** 6% interest	**Arizona**
Hawaii Counties may supplement with no limitation.	**Connecticut** 50%-100%	**Georgia** Per sq. ft./ADA. District must have outstanding bonds exceeding 14% of capacity.	**Massachusetts** Grant is inversely related to the proportion of district equalized valuation to statewide average equalized valuation. Does not include site costs and only 1/2 of interest costs is eligible for reimbursement.	**California** State assumes interest.	**Colorado**
Maryland Does not include site purchase. Districts may supplement with no limitation.	**Delaware** 60%	**Indiana** Per ADA, may be used to meet operating expenditures.	**Michigan** Guarantees an amount of equalized valuation per pupil.	**Indiana** 1% interest. District must have levied debt service taxes of 5 mills for 3 previous years.	**Idaho**
	Maine 50%	**Kentucky** Per weighted ADA	**New Jersey** Share equals district assessed valuation / assessed valuation of district at 65%	**Michigan** State will loan up to 90% of required funds over a 7 mill district levy provided district also levies a 12 mill tax for current operating expenditures.	**Iowa**
	New Hampshire 30%-55% of principal	**Mississippi** Per ADA		**North Carolina**	**Kansas**
	Pennsylvania	**Missouri** Per pupil		**North Dakota** 2.5% interest. District must levy 20 mill tax during repayment period.	**Louisiana**
	Tennessee Not to exceed 57.5%	**Nevada** Per weighted pupil		**Wisconsin** 5.5% interest. Outstanding district debt must be less than 10% of equalized valuation.	**Minnesota**
	Vermont 20%-75%	**South Carolina** Per pupil			**Montana**
		Tennessee Per ADA			**Nebraska**
		Virginia Per school-age child			**Ohio**
					Oklahoma
					Oregon
					South Dakota
					Texas
					West Virginia

New Mexico

Guarantees an amount per mill for up to 2 mills of district levy.

New York

Share is approved expenditures times an aid ratio based on relationship between district assessed valuation per pupil and state average valuation per pupil.

Rhode Island

Share equals

1 - (constant) x (equalized valuation per ADM)

Utah

Funds difference between what district raises at between 8 and 13.5 mills and state-approved costs.

Washington

Share is based on the relationship between the district's adjusted valuation and the state average adjusted valuation up to 90%.

Wisconsin

A formula is used to equalize up to $100 per school member.

Wyoming

District must have borrowed up to 95% of its limit sometime in previous 3 years.

NOTE: States appearing in more than one column are underlined twice.

* In Florida and Maryland, state appropriation has been less than locally requested and/or state approved.

** Figures indicate state share.

*** State share is described under each state.

**** Interest rates refer to amount charged by state on loans.

held by the district for future capital use. In Indiana, however, the funds allocated may be used to meet either the capital or the current operating expenses of school districts.

Nine states, listed in column 4 of Table 1, attempt to equalize the distribution of state aid for capital construction through formulas that are sensitive to variations in district wealth. The states using these formulas are usually those that also have reformed the process by which they distribute aid for general operating expenditures. While these states do not guarantee the full costs of construction, they do support a greater proportion of capital costs being state aided in less wealthy districts. Some of these states limit the proportion of approved capital costs that they will reimburse while others fund the difference between the cost of a project and the amount raised locally at a prescribed tax effort.

In addition to those states that aid local district capital expenditures through grants, some states provide loans to districts and generally specify fixed interest rates, but indirectly subsidize them by charging lower than market rates. Most states that loan funds to districts require that they be taxing themselves at a certain level or be bonded to some limit of their capacities. In Michigan, local districts must tax themselves to raise funds for both current operating and capital expenses before they are eligible to receive a state loan for capital purposes.

Under every funding arrangement discussed, local districts participate to some extent in paying for capital outlay or debt retirement. The burden upon local districts with similar capital requirements will differ across the states. Of equal concern, however, are the interdistrict disparities that result from any of these approaches.

III. ISSUES IN STATE AID FOR CAPITAL OUTLAY

School District Wealth and Capital Need

The need for local school districts to expend funds for capital purposes arises from a variety of circumstances. Enrollment changes resulting from population growth or, more importantly, population shifts affect both interdistrict and intradistrict facilities requirements. Alterations in enrollment patterns among grade levels particularly affect districts that previously have built facilities designed to meet the curricular needs of specific grades. Inadequate buildings and those that do not comply with safety or health codes may be in need of extensive renovation. New educational programs are often accompanied by modifications in facilities as well as investments in expensive equipment, such as that required for handicapped children under Public Law 90-480 of 1968 and Public Law 94-142 of 1975, which demanded extensive building remodeling and increased the costs of new facilities.

Facility need among school districts varies greatly, usually more than current operating costs vary among districts.[19] Often, the demand for facilities cannot be adequately predicted and can fluctuate within a single district over a shorter period than the district requires to plan, fund and build. In addition to the necessity of uneven distribution of facilities among local school districts, construction costs may vary within a state due to the availability of materials, labor costs or site purchase costs.

Facility need should be unrelated to district wealth, although, unfortunately, the ability of a district to meet its needs is dependent on its wealth. In many states, building aid has been available primarily for new construction and has been distributed to the wealthier suburban districts, which expanded rapidly after World War II. As a result, little money has gone to poorer central cities, which need facility renovation, not new construction. While aid might shift if the distribution were equalized, the central cities may still not receive sufficient state support since their per pupil property wealth is relatively high.

State Limitations on School Districts

Most of the circumstances affecting the need for facilities, as discussed above, are beyond the control of the state, although its reac-

[19] William R. Wilkerson, *Problems and Issues of Fiscal Neutrality in Financing School Construction*, p. 5.

tion, particularly in light of its scarce resources, may have worsened need disparities among its local districts. In some states, funds have been directed only toward new construction, not renovation. A sharing of capital costs, on a percentage basis, has placed an enormous burden on some state districts to provide their portion. Certain districts may be at a disadvantage, which, over time, may have been exacerbated by the allocation process employed by the state to distribute funds for capital outlay and debt service.

The state may also, through its own actions, have affected a local district's ability to raise sufficient funds to meet facility need. For example, among all states, legal restrictions on school districts that raise funds for capital purposes essentially affect a local district's ability to tax itself and go into debt. Such policies may also indirectly affect interest rates faced by local districts when they borrow funds.

One of the most common limitations that states impose upon local districts is a debt ceiling, defined in terms of a tax rate or a restriction on bonded indebtedness related to district taxable wealth. Such ceilings allow wealthier districts to raise more funds through the issuance of bonds than their less wealthy neighbors since debt ceilings are a proportion of the district's property wealth, although they bear no relationship to an individual district's need for funds in a particular year. A 1972 study of Delaware's capital-support program noted that while the typical district had sufficient local debt leeway to finance current building needs, it was not uniform. In Delaware, some poorer districts could not raise their share of capital costs because of a debt limitation of 10 percent of assessed valuation. Using an index with 100 defined as the debt leeway of the average district in the state, range was from 12 to 206.[20] If assessment procedures were uniform across state districts that restricted such a debt, the result would be an unequal district ability to raise funds for capital purposes. In a state without uniform assessments, the inequity could be compounded further if low-wealth districts also had below-average assessment levels. States that allocate aid for capital outlay and debt service on a flat-grant or proportion-of-cost basis and also limit the debt or tax rates of local districts can create a situation in which the poorest districts could not raise sufficient funds to meet their proportion of the costs of a capital construction project.

Many states, however, provide a portion of the funds for capital expenses but allow districts an unlimited tax authority. Thus, the wealthier districts in a state not only can meet their shares of approved project costs more easily than less-wealthy districts but can exceed state regulated costs and provide locally desired options with similarly lower effort. Even in states that equalize the distribution of state funds to meet standard determined costs, the funds supplied

[20] William R. Wilkerson and W. Monfort Barr, "Recent Court Decisions and School Capital Outlay" in *School Finance in Transition*. Proceedings of the 26th National Conference on School Finance (Gainesville, Fla.: Institute for Education Finance, 1973), p. 138.

by wealthy districts, even in excess of standard costs, may be provided more easily than in a poorer district. In fact, when a state fully assumes allowable costs, wealthy districts can furnish additional funds for superior equipment, decoration or other nonallowable items at lower tax rates than less wealthy ones. In Hawaii, for instance, counties can exceed state provided funds according to a 1968 state law. This law, repealing a 1955 one that precluded such additional expenditures, was enacted "in order to allow counties to go above and beyond the state's standards and provide educational facilities as good as the people of the counties want and are willing to pay for."[21] Since counties differ in wealth, however, the provision of such choice is disequalizing.

Interest Costs

Interest on borrowed money strongly influences the cost of capital projects. Interest rates are related to the "faith and credit" of the bond-issuing agency, which is defined by community type (residential, business or industrial), current outstanding debt, duration of repayment period and the tax base available for repayment. School districts were responsible for over 80 percent of all state, local and special agency bond sales in 1974, although their sales accounted for just under 68 percent of their dollar volume.[22] Those school districts selling bonds faced different interest rates, however. On the average, districts with AAA Moody ratings incurred interest rates of 4.97 percent while districts with BAA ratings were facing interest rates of 5.59 percent, 62 basis points (62/100 of a percent) above the highest-rated districts. Among all districts, less than 37 percent were rated AAA or AA and confronted interest rates up to an average of 5.04 percent while over 63 percent of the districts were rated A or BAA and faced interest rates that averaged between 5.48 and 5.59 percent.[23] In meeting an annual given level of facility need, a poorer district exerts more effort than a wealthier district since the former would be taxing itself more heavily to raise the same funds and, due to increased costs that result from higher interest rates, taxing itself additionally to meet those excess costs. Only in those states that loan funds to local districts will this interest penalty be alleviated and there may be an absolute savings in the amount paid for capital construction since the state will tend to incur lower interest rates than most school districts. In 1974 the interest rate for state issued bonds was 47 basis points less than the average interest rate paid by school districts.[24]

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[21] Section 1, Act 38, Session Laws of Hawaii, 1968.

[22] Irene A. King and Richard Barr, *Bond Sales for Public School Purposes, 1973-74*, pp. 4-5.

[23] Irene A. King and Richard Barr, *Bond Sales for Public School Purposes, 1973-74*, Table 4, p. 5.

[24] Irene A. King and Richard Barr, *Bond Sales for Public School Purposes, 1973-74*, Table 4, p. 5.

Bond Elections

One of the major obstacles faced by school districts in meeting their facility needs is the public approval required in order to issue bonds. The different levels of plurality required make approval more difficult in some states than in others. Recent bond election results indicate that bond approvals are increasing, although they are unevenly distributed within states. Of the $2.2 billion approved by voters in 1974, six states accounted for 60 percent of the dollar value of approved bond sales. Similarly, these same states accounted for 52 percent of the dollar value of bond issues that failed that year.[25] Much recent research has tried to understand the bond election process and predict election outcomes on the basis of district characteristics, such as wealth (under the assumption that the greater the availability of property wealth, the more likely that district voters would approve the sale of bonds). The bond approval process is, however, apparently more complex than the method by which current expenditure levels are set by districts.[26] Thus far, district wealth has not been shown to be strongly related to bond approval and, in fact, the variables that do predict voter approval of bond issues have proved to be elusive.[27]

The Influence of Current Expenditures

The relationship between state aid for current operating expenditures and that for capital expenditures can cause an inequitable distribution of capital costs. Unless a state fully assumes all costs associated with capital outlay and debt service, any taxes that are raised by local districts for capital purposes must be viewed as a burden in addition to taxes imposed for current operations. Even if the taxes for capital purposes were equalized, the impact on the entire tax burden of a district might be slight. While most states have separate administrative and financing procedures for capital outlay, some states distribute funds to local districts under a capital grant allocation, but allow districts to utilize those funds to meet current expenditures. When such funds are not uniformally distributed, they can influence any equalization that might have occurred in apportioning current operating funds.

The distribution of state funds for current operations may affect a school district's ability to meet its capital needs in additional ways.

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[25] Irene A. King and Richard Barr, *Bond Sales for Public School Purposes, 1973-74*, p. 2.

[26] See, for example, H. T. James, Walter I. Garms and James A. Kelly, *Determinants of Educational Expenditures in the Great Cities of the United States* (Stanford, Calif.: Stanford University School of Education, 1965).

[27] See Philip K. Piele and John Stuart Hall, *Budgets, Bonds and Ballots* (Lexington, Mass.: D. C. Heath and Company, 1973). This book contains a summary of studies that have attempted to relate various school district characteristics to voter patterns on bond issues.

Less-wealthy districts may find it difficult to afford a staff primarily attentive to their facility needs, although such expertise is usually necessary, particularly for the projected construction of buildings designed to last several decades. Even if a building costs the district nothing to construct, the expense for maintenance, carried as a current expenditure, will have to be borne in the future. Less-wealthy districts may have to make a greater tax effort to raise the same revenue for such maintenance expenses. Thus, when a state does not equalize its distribution of aid for current expenses, it may be indirectly affecting a school district's ability to meet its capital needs.

The Interaction of Past and Present Capital Needs

One final issue should be mentioned. Any solution to current problems in distributing capital construction grants also must be sensitive to previous inequities — capital outlay and future debt service cannot be isolated from the debt service that exists on buildings already constructed. The problem is further complicated because relative wealth of a district may change so that what it requires in order to equalize its debt burden today may not be what it needed when in debt, in the past.

IV. AN EXAMINATION OF CAPITAL CONSTRUCTION ISSUES IN FOUR STATES

To understand more fully how the distribution of state capital funds affects local districts, it is of value to examine the current situation in several states. Four states have been selected for detailed discussion: New York, Maryland and Florida were chosen for their attempts to distribute equally capital support funds; Ohio, a state providing no funds to districts for capital purposes, was selected in order to examine the relationship between bond issue election outcomes and local district wealth.

These state studies are brief and are directed at only a few of the previous issues. However, these studies do highlight some of the reasons why the distribution of state funds for capital purposes should be modified, since the vast majority of states either provide no aid for local district capital outlay and debt service, give only loan funds or supply grants that are either distributed on a per pupil basis or as a proportion of costs. Each of these schemes, along with the bonding restrictions placed on districts, results in inter-district inequities that should be alleviated.

New York

New York currently aids the approved capital expenditures of its local districts through a formula that has not been modified since 1962. Approved building expenses are those incurred by constructing new facilities or additions to present structures or by altering or modernizing them in compliance with standards established by the state education department. The state has limited aidable expenditures based on the rated capacity of the building and a per pupil cost allowance specified by law.[28] New York aids both debt service and cash payments for approved building expenditures.

State aid is calculated by multiplying approved costs by an aid ratio, defined below:

$$\text{Aid Ratio} = 1.000 - \left(\frac{\text{Full value per resident-weighted ADA}}{\text{State average full value per weighted ADA}} \times .51 \right)$$

[28] Rated capacity refers to a state determined square footage per pupil and other requirements that insure the availability of adequate space for education programs.

For the purposes of calculating 1975-76 state aid, the full valuation per pupil for 1973-74 is used. The aid ratio for the district of average wealth is, therefore, 49 percent.[29] For districts with wealth greater than average, state aid declines to zero while for districts with less wealth than the average, state aid increases to a maximum of 90 percent of approved expenses. There is no flat-grant component of the formula, although a save-harmless provision in it exists, but applies only to those districts for which construction or debt was authorized and approved prior to July 1, 1962 and, therefore, its influence is negligible.

Through these provisions, New York can equalize building aid more than current expenditures. As shown in Table 2, state aid averaged almost 87 percent of all building costs for the districts in the lowest-wealth category while for those in the second highest category, state capital aid was under one percent of approved expenses. In contrast, districts in this second highest wealth category received as state aid,[30] on an average, 15 percent of their approved operating expenses.

Table 2 also indicates that districts are spending similar amounts per pupil for capital purposes. Districts accounting for over 97 percent of the students[31] spent between $120 and $133 per pupil, a much narrower range than that for current operating expenditures.[32] One measure of the equalizing effect of the formula is the degree to which all districts raised the same revenues for capital expenditures per unit of local capital effort. In order to construct this standard a derived local tax rate first is calculated by dividing the local district capital contribution by district wealth. Using the midpoints of wealth ranges, the results are indicated in column 7 in Table 2. The derived local tax rate varies among districts and declines as wealth increases. For the vast majority of pupil units, over 96 percent, the range of derived tax effort — 1.31 mills to 1.51 mills — is narrow, similar to that in total capital expenditures per pupil among districts.

Column 8 in Table 2 indicates the revenue raised per pupil in local tax effort. This figure is computed by dividing the total revenues flowing to a district for capital purposes from local and state sources by the derived tax effort made by the local district. While the wealth-

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[29] This is derived as follows: Since the average district will have the same full property value per weighted ADA as the state average, the ratio in brackets becomes unity (1). The formula then calculates aid for the average district as 1.000-(1 x .51) = .49 or 49 percent.

[30] *Analysis of New York State's System of School Finance* (Albany, N.Y.: State of New York, October 1976), p. 93.

[31] The distribution of pupil units by district wealth is as follows: $0-$15,000, 1.6%; $15,001-$90,000, 94.7%; $75,001-$90,000, 1.8%; $90,001-$330,000, 2.0%.

[32] See Table 31, p. 63, *Analysis of New York State's System of School Finance* for the distribution of current expenditures by district wealth.

Table 2

New York State Capital Expense Statistics by Ranges of District Property Wealth Per Pupil, 1975-76

(1) Range of Property Value Per Pupil	(2) Midpoint of Range	(3) Total Capital Expense Per Pupil	(4) State Capital Aid Per Pupil	(5) State Capital Aid as a Percent of Total Capital Expenses	(6) Local Capital Cost Per Pupil*	(7) Derived Local Tax Rate**	(8) Capital Dollars Per Pupil Per Mill Raised at Local Tax Rate***
$ 0- 15,000	$ 7,500	$115	$100	86.9 percent	$ 15	2.00 mills	$ 57.50
15,001- 30,000	22,500	133	99	74.7	34	1.51	88.03
30,001- 45,000	37,500	133	82	61.7	53	1.41	94.33
45,001- 60,000	52,500	133	60	45.6	73	1.39	95.68
60,001- 75,000	67,500	130	36	28.1	94	1.39	93.53
75,001- 90,000	82,500	125	17	13.5	108	1.31	95.42
90,001-105,000	97,500	120	1	1.0	119	1.22	98.36
105,001-120,000	112,500	121	1	0.9	120	1.07	113.06
120,001-330,000	175,000	73	1	1.9	72	0.41	178.05

Source: For columns 1, 3, 4 and 5: Table 44, *Analysis of New York State's System of School Finance* (Albany, N.Y.: State of New York, October 1976) p. 94. New York City is included in this analysis since it receives building aid on a citywide basis.

* Calculated as the difference between column 3 and column 4.
** Calculated by dividing column 6 by column 2.
*** Calculated by dividing column 3 by column 7.

iest districts, on average, can raise more than three times as much capital revenue as the least wealthy districts, over 96 percent of all pupils reside in districts that raise between $88 and $95 per mill of effort. New York's system in aiding capital expenditures is, therefore, fiscally neutral and, based on the discussion above, districts are essentially spending uniform amounts for capital purposes.

These outcomes do not, however, imply that the state provides funds sufficient to meet all district needs. In addition, even when need has been equalized for all districts, the interest rates that districts will face may differ depending on the characteristics of districts, including wealth. Finally, wealthier districts can supplement the state-determined building requirements more easily than poorer districts.

Maryland

Since 1971, Maryland has attempted to assume the full costs for local district capital construction as well as all costs associated with retiring outstanding bonded indebtedness that existed on July 1, 1967. Prior to that date, the state had assisted school building projects by providing $70 per new pupil and $22 per continuing pupil so that the total amount exceeded the yield from a tax of five cents per $100 of district assessed valuation. Beginning July 1, 1967, the state modified its financing approach and began to fund districts by supplying 80 percent of the cost per pupil "housed," up to $1200 per pupil. Under the arrangement, districts received between 35 percent and 70 percent of the calculated cost of capital projects.[33] In addition, the state also provided 80 percent of the cost of retiring debt outstanding prior to July 1, 1967. Between 1967 and 1971, local governments requested funds for capital purposes and the general assembly passed a bill creating a bond issue to fund a portion of needs. While the state had excellent credit and the interest rate on the bonds issued was lower than that which local districts might face, the state bonds were never sufficient to fund most district needs. Further, state bonds had a 15-year repayment period. Since districts had to provide enough funds to meet their facility requirements and they could borrow funds for a 30-year period on their own, substantially reducing their annual payments in comparison to the 15-year span, they moved away from participation in the state program.

Recognizing that local debt limitations were being reached and that local credit ratings were deteriorating, the state assumed all future school construction costs beyond July 1, 1971. An intra-agency committee was established to provide guidelines and management for the program, which in its initial year of operation received nearly $500 million in aid requests. The state distributed only $150 million

[33] Alford R. Carey Jr., "The Maryland Experience: Full State Funding of Capital Outlay" in *School Finance in Transition*, proceedings of the 16th National Conference on School Finance (Gainesville, Fla.: Institute for Educational Finance, 1973), pp. 145-49.

in the first year and over the first five years of the program has provided almost $1 billion. But during that time, the state's credit began to worsen and the apportioning of the funds, involving a subjective process, proved to be a difficult political task. In an effort to bolster the state's credit, a very small appropriation was approved last year. A committee is currently studying ways to improve the distributional system while protecting the state's credit and providing a suitable local participation.[34]

Table 3 shows results of the state's inability to fund all local capital expenditures. Total capital expenditures, the sum of columns 2 and 3, per pupil vary widely among districts, from a low of $24 to a high of $707, and are not associated with district wealth. While local expenditures tend to be much less than state ones, the proportion of all capital outlays assumed by the state varies among districts, as shown in column 4. With the exception of the district with the highest wealth per pupil, the state, in effect, shares between 62 percent and 100 percent of all-capital costs. The state portion of all-capital expenditures, however, is not clearly associated with district wealth, as it is in New York. An area with almost $59,000 of wealth per pupil received over 83 percent of its capital revenues from the state while a district with less than $34,000 in wealth per pupil received 72 percent of its capital revenues from the state.

The derived local tax effort required of a district to meet its share of capital expenses is indicated in column 5 of Table 3. The tax base in Maryland includes both property and income since counties receive revenue from the state collected on the basis of county income. The single tax rate computed applies to all forms of wealth and, as such, does not indicate a true rate. The derived local tax rate is, however, a convenient comparative measure of the exertion of different school districts in meeting their capital needs. While this rate varies widely, it does not appear to be related to district wealth. When both the total expenditures and tax rates change greatly among districts and are unrelated to wealth, the dollars raised per unit of effort indicates a district's relative ability to generate revenue. Column 6 in Table 3 shows the dollars raised per one hundred thousandth tax effort (.00001 mills) unit. While the richest district raises less dollars per unit effort than most others, many wealthy districts raise two and three times the amount that less wealthy ones raise. Thus one concludes that the distribution of capital aid is not fiscally neutral.

Florida

Since 1947, Florida has helped finance school construction. Initially, the state allocated $300 per instruction unit (a classroom of 27 students) per year provided this amount was matched by $100 of district funds, but in 1948, this requirement was discontinued and, from that

[34] Based on a telephone call to the Maryland Fiscal Services Bureau, Jan. 4, 1977.

Table 3

Maryland Capital Expense Statistics by District Wealth, 1973-74

(1) Total Property and Income Wealth Per Pupil	(2) Local Expenditure Per Pupil, Capital Outlay and Debt Service	(3) State Expenditure Per Pupil, Capital Outlay and Debt Service	(4) State Expenditure as a Percent of Total Capital Expenditure*	(5) Derived Local Tax Effort**	(6) Capital Dollars Raised Per 1/100,000 of Local Tax Effort***
$62,604	$ 86	$ 33	27.7%	.00137	$ .87
58,951	55	277	83.4	.00093	3.57
51,128	49	95	66.0	.00096	1.50
48,609	77	530	89.1	.00158	4.47
48,331	61	241	79.8	.00126	2.40
38,617	60	205	77.4	.00155	1.71
36,445	13	99	88.4	.00036	3.11
35,382	90	407	81.9	.00254	1.96
34,616	124	361	74.4	.00358	1.35
34,523	1	463	99.8	.00003	154.67
34,512	53	584	91.7	.00154	4.14
33,991	83	216	72.4	.00244	1.23
33,825	26	392	93.8	.00077	5.43
33,643	36	165	82.1	.00107	1.88
33,603	55	326	85.6	.00164	2.32
32,712	8	228	96.6	.00024	14.00
31,250	49	80	62.0	.00157	.82
30,427	54	163	75.1	.00177	1.23
28,079	--	24	100.0	.00000	--
28,074	49	159	72.9	.00175	1.25
27,008	53	163	75.5	.00196	1.10
22,979	35	169	82.8	.00152	1.34
22,954	19	245	92.8	.00083	3.18
22,344	12	561	97.9	.00054	10.61

Source: For columns 1, 2 and 3: *Selected Financial Data, Maryland Public Schools, 1973-74* (Baltimore, Md.: Division of Research, Evaluation and Information Systems, Maryland State Department of Education, February 1975). For column 1 the values are found by dividing local appropriations for public schools, Part III, Table 11, by the product of the number of pupils, Part III, Table 12, and the proportion which local appropriations are of assessed valuation and net taxable income, Part III, Table 15. For column 2 the values are found by dividing local district appropriations for capital outlay and debt service, Part III, Table 14, by the number of pupils, Part III, Table 12. For column 3 values are found by adding state revenue for school construction, Part I, Table 4, to state revenue for debt service, Table 5, and dividing the sum by total pupils, Part III, Table 12.

* Calculated by dividing column 3 by the sum of column 2 and column 3

** Calculated by dividing column 2 by column 1

*** Calculated by dividing the sum of column 2 and column 3 by the product of column 5 and 100,000

time until the 1972-73 school year, each school district has been eligible to receive $400 per instruction unit per year. The 1972 legislature raised the state grant from $400 to $600 for instructional units existing in 1967-68 and provided a grant of $800 for units added above the base year. Additional state programs distributed funds for capital purposes although targeted for community colleges, vocational education projects or special education facilities. State loans were also available to local school districts.

Between 1946 and 1972 over $1.8 billion was spent on school construction in Florida. Local revenues provided $1.0 billion of this total, split almost equally between current funds and bonds. The state furnished almost all remaining funds although federal funds accounted for just over 2.5 percent of the total.

In 1973, the state expanded its financial support for the elementary/secondary capital expenditures. As part of the Florida Educational Funding Program, the legislature intended to assume more responsibility for school construction in order to furnish more satisfactory student stations and encourage innovations in school design, construction techniques and financing mechanisms. The Comprehensive School Construction and Debt Service (CSCDS) program, established to fulfill these intentions, included both a complex formula for determining the unmet capital need of a school district and a priority list, in statutory form, outlining the allocation of funds to capital projects. These priorities, currently in effect, are as follows:

First Priority:

- New classrooms and special instructional facilities to provide needed pupil stations, especially to alleviate overcrowding and eliminate multiple daily sessions.
- Sites or additions to them.
- Restoration and correction of safety to life and health deficiencies.
- Spending up to 10 percent of the district's allocation on correcting such deficiencies.

Second Priority:

- Special instructional and auxiliary facilities needed in a school's program.

Third Priority:

- Alterations to improve the utility of a school's space.

Fourth Priority:

- Replacement or alteration of existing mechanical systems.

Fifth Priority:

- Debt service in district bonds serviced by voted ad valorem taxes.

The CSCDS program also mandated the state department of education to provide relocatable school facilities and prototype school plans. Finally, the program permitted the use of leased space and required all school construction to meet minimum state standards.

Despite this program, facilities were not built as rapidly as they were needed, resulting in almost 250,000 students attending schools that operated multiple sessions. In 1974, therefore, the 1973 legislation was specified more clearly and state authority strengthened. Although district facilities needs were formally assessed and state services expanded, funding for the comprehensive program has been a small proportion of the legally defined need. Districts receive an amount equal to their proportion of total state unmet need. District ability to pay is only an indirect consideration in the distribution of funds. Unless all needs are funded, therefore, districts are required to make unequal efforts to meet their remaining needs or to spend their state money and commit no local funds, beyond those already allocated for capital purposes from current expenditures to capital projects.

These circumstances can be analyzed more carefully by looking at capital outlay and debt service data for 1975-76, when the state estimated that capital-outlay need for Florida's 67 elementary/secondary school districts was in excess of $875 million. The projected debt service for the five year period 1975-76 to 1980-81 was almost $220 million. To distribute funds allocated under the Comprehensive School Construction and Debt Service Program, the 1975-76 to 1980-81 unfunded capital outlay and debt service needs of all school districts, the amount that districts were not projected to provide themselves, was calculated as $1,115 million.[35] Funds actually allotted by the state for capital purposes amounted to approximately $145 million.[36]

Table 4 summarizes the data for Florida's school districts, arranged by intervals of property wealth per unweighted full-time equivalent pupil. A comparison of the distribution of pupils among the districts, indicated in column 2, with the distribution of property wealth, shown in column 3, signifies that districts that have less than $40,000 of property wealth per pupil enroll 38 percent of the students although they contain just over 20 percent of the property wealth. For each group of districts with more than $40,000 of property

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[35] From the 1975-76 *Capital Outlay Generator* (Tallahassee, Fla.: State Department of Education).

[36] Esther O. Tron, *Public School Finance Programs, 1975-76* (Washington, D.C.: U.S. Office of Education, Bureau of School Systems, 1976), pp. 92-93.

Table 4

Florida Capital Expense Statistics by Ranges of District Property Wealth Per Pupil, 1975-76

(1) Range of Property Value Per Pupil	(2) Percent of All Pupils	(3) Percent of All Property Wealth	(4) Current Capital Need Per Pupil	(5) Percent of All Current Capital Need	(6) State Capital Aid Per Pupil*	(7) State Capital Aid as a Percent of Current Capital Need**
$ 0-19,999	3.6%	1.3%	$ 644	3.2%	$ 68	10.6%
20,000-29,999	12.9	7.8	610	12.9	71	11.6
30,000-39,999	21.5	11.0	672	14.7	111	16.5
40,000-49,999	5.7	7.4	1,088	5.1	152	14.0
50,000-59,999	17.4	20.6	507	13.9	90	17.8
60,000-69,999	20.9	27.7	738	34.5	81	11.0
70,000-79,999	14.6	16.6	588	12.7	107	18.2
over 80,000	3.3	7.6	709	2.9	155	21.9

Source: For columns 2 and 3 figures are based on unweighted FTE enrollments and equalized assessed valuations available in *Profiles of Florida School Districts*, V (Tallahassee, Fla.: Department of Education, May 1976). For columns 4 and 5 figures are based on the *Florida Capital Outlay Generator*, 1975-76, supplied by the Florida Department of Education.

* Calculated by distributing 1975-76 Comprehensive School Construction and Debt Service Program funds in proportion to district unmet need, determined in the *Florida Capital Outlay Generator*, and by distributing 1975-76 Capital Outlay and Debt Service funds to districts on a per pupil basis.

** Calculated by dividing column 6 by column 4.

wealth per pupil the proportion of that wealth exceeds the proportion of students. In the case of the wealthiest group, the proportion of wealth is, on average, more than twice the proportion of students.

Current capital need per pupil, including both capital outlay and debt service requirements of school districts, as calculated by the state, is indicated in column 4 of Table 4. Although need does vary among districts, it is unrelated to district wealth. The distribution of capital need among the districts, categorized by wealth, is shown in column 5. Aggregate capital need is associated with the distribution of pupils among districts. The relationship between capital need and wealth can be determined by comparing columns 5 and 3. For all wealth categories up to $40,000 per pupil, capital need exceeds wealth while for districts with more than $40,000 of property wealth per pupil, capital need is less than wealth, except for districts with between $60,000 and $69,000 of property wealth per pupil.

State capital aid was distributed through the Comprehensive School Construction and Debt Service Program and the Capital Outlay and Debt Service Fund. Column 6 of Table 4 shows the average per pupil allocation of these funds among districts. A strong relationship between average state capital aid per pupil and district wealth does not emerge. However, as shown in column 7, the proportion of capital need aided by the state ranges from 10.6 percent to 21.9 percent, generally increasing in proportion to district wealth. State capital aid is small in comparison with district capital need. With property wealth and capital need unevenly dispensed among districts and the state providing less than 22 percent support for local district capital needs, it is important to determine whether the state's distributional system promotes an equitable apportionment of the local share among all districts.

The burden confronted by Florida's local districts is indicated in Table 5. Districts are grouped by the same categories of property wealth per pupil in Table 5 as in Table 4. Column 2 of Table 5 shows the average property wealth per pupil of the district within each wealth group. If the districts were to provide the difference between their capital need and the capital aid allocated by the state, they would incur the responsibilities shown in column 3. In raising the amount of funds pointed out in column 3, districts would have to tax themselves at the rates shown in column 4. For the districts with less than $50,000 in property value per pupil, the required millage would exceed the 10-mill levy that the state views as appropriate.[37]

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[37] The state sets no maximum levy for capital purposes although tax levies for debt service are limited to 6 mills. In calculating the unfunded school plant and debt service needs of districts for the purposes of distributing Comprehensive School Construction and Debt Service Program funds, expenditures of ad valorem taxes in excess of 10 mills are added to the unfunded amount.

Table 5

Florida Local District Capital Expense Statistics Given 1975-76 State Capital Aid Distribution

(1) Range of Property Value Per Pupil	(2) Average District Property Value Per Pupil	(3) Local District Funds Required to Meet Capital Need*	(4) Derived Local District Tax Rate**	(5) Capital Dollars Per Mill Raised at Local Tax Rate***
$ 0-19,999	$ 15,902	$576	36 mills	$ 17.89
20,000-29,999	24,735	539	22	27.73
30,000-39,999	34,024	561	16	42.00
40,000-49,999	44,134	936	21	51.81
50,000-59,999	55,226	417	8	63.37
60,000-69,999	62,905	657	10	73.80
70,000-79,999	75,404	481	6	98.00
over 80,000	105,774	554	5	141.80

Source: For column 2, figures are based on unweighted full-time equivalent enrollments and equalized assessed valuations available in *Profiles of Florida School Districts*, V (Tallahassee, Fla.: Department of Education, May 1976).

* Calculated by subtracting column 6, Table 4, from column 4, Table 4.
** Calculated by dividing column 5 by column 2.
*** Calculated by dividing column 4, Table 4, by column 4, Table 5.

Taxing themselves at those rates, districts would, on average, raise the number of dollars per pupil per mill shown in column 5, which figures are clearly related to district wealth, increasing uniformly as wealth increases. With the lowest value in columns 2 and 5 as reference, the rate of increase in average property value per pupil and average dollars raised per pupil per mill is compared below for each interval of property value per pupil.

Interval of Property Value Per Pupil	Property Value Per Pupil	Dollars Per Pupil Per Mill
$ 0-19,999	1.00	1.00
20,000-29,999	1.56	1.55
30,000-39,999	2.14	2.35
40,000-49,999	2.78	2.90
50,000-59,999	3.47	3.54
60,000-69,999	3.96	4.13
70,000-79,999	4.74	5.48
over 80,000	6.65	7.93

Thus, the rate of increase in dollars per pupil per mill is, except in the second-to-lowest-wealth group, larger than the corresponding increase in property wealth per pupil. The wealthier a district is the more dollars it generates in combined state and local capital per unit of tax effort.

The system just described is not fiscally neutral. In order for less wealthy districts to meet their capital needs they must tax them-

selves at higher rates because, under the state's system of providing capital support, they raise fewer total dollars for every mill of tax effort. Full state assumption of capital expenditures would have eliminated this result but at a cost of an additional $700 million to the state. However, the state could have allocated its 1975-76 resources differently and alleviated some of the system's inequities. One alternative funding system would involve the state's guaranteeing a certain yield for every unit of tax effort made by districts. Given its available resources, the state could have guaranteed every district $46 per pupil per mill of tax effort in 1975-76. Had every district taxed itself at a rate sufficiently high for it to meet its capital needs, the state/local share would have been as shown in Table 6. Column 3 indicates the tax rate required if $46 per pupil were promised by the state for every mill of local effort. For districts with more than $50,000 of property value per pupil the tax rate in question would actually raise an amount of funds in excess of their capital need, shown in column 2. The figures in parentheses in column 3, therefore, indicate the lower millage that the districts would charge in order to meet their needs. The amount of funds generated by local districts at the tax rates in column 3 is shown in column 4. State aid required is listed in column 5. The negative numbers for districts having more than $50,000 in property value per pupil are the amounts that the state would collect if it recaptured local funds generated in excess of need at the guaranteed level. This system is fiscally neutral: every district raises the same amount of funds with a similar effort and allocates sufficient funds to meet all state-determined capital need. However, districts with greater need must tax themselves at a higher rate, an appropriate burden on districts if capital need were related in some way to local policies.

The full amount of need would not have to be funded in a single year as outlined above because the state could pay the entire cost through bonds and create a repayment schedule for districts that would incorporate a revenue guarantee operating over time.

Ohio

Ohio does not fund the capital outlay or debt service expenditures of its local school districts, which must, therefore, rely solely on bond issues to meet their long-term capital needs. Do district characteristics, such as wealth, seem to have any impact on the outcome of elections? The following glimpse at Ohio does not determine predictors of bond passage or failure but rather examines patterns in the relationship between district wealth and willingness to accept bonded indebtedness.

In November 1975, 52 school districts submitted bond issues to the electorate. Of these, 11 were approved, totaling $28.8 million, while 41 issues, with a value of $95.3 million, were refused. Table 7 lists the 52 districts that held bond elections and ranks them, within the passed and failed categories, by district property wealth per pupil. A

Table 6

Local Tax Rate, Local Contribution and State Aid for Capital Expenses Under an Alternative State Aid Program

(1) Range of Property Value Per Pupil	(2) Current Capital Need Per Pupil	(3) Local Mill Rate Required With $46 Per Pupil Per Mill Guarantee*	(4) Local Amount Raised Per Pupil**	(5) State Aid Per Pupil***	(6) Capital State Aid as a Percent of Current Capital Need****
$ 0-19,999	$ 644	14.0 mills	$ 223	$ 421	65.4%
20,000-29,999	610	13.3	324	286	46.9
30,000-39,999	672	14.6	497	175	26.0
40,000-49,999	1,088	23.7	1,046	42	3.9
50,000-59,999	507	11.0 (9.0)	607 (507)	−100 (0)	0.0
60,000-69,999	738	16.0 (11.8)	1,006 (738)	−268 (0)	0.0
70,000-79,999	588	12.8 (7.8)	965 (588)	−377 (0)	0.0
over 80,000	709	15.4 (6.7)	1,628 (709)	−919 (0)	0.0

Source: For column 2 see column 4 of Table 4.

* Calculated by dividing column 2 by 46.
** Calculated by multiplying column 3, Table 6, by column 2, Table 5.
*** Calculated by subtracting column 4 from column 2.
**** Calculated by dividing column 5 by column 6.

Table 7

Statistics for Ohio School District Bond Elections, November 1975

(Districts arranged by wealth within election result categories)

	(1) Assessed Valuation Per Pupil	(2) Local Tax Millage for Current Operating Expenditures	(3) State and Local Dollars Raised Per Mill of Tax	(4) Bond Dollars Sought Per Pupil	(5) Required Mill Rate for Immediate Repayment*
Districts in which bonds failed:					
	29,743	30.30	40.4	2601	87.5
	27,492	36.42	33.0	270	9.8
	24,752	37.90	32.0	554	22.4
	24,213	20.50	38.4	2747	113.5
	23,298	43.20	30.9	288	12.4
	22,952	44.40	29.3	210	9.2
	21,703	31.40	33.6	1034	47.6
	20,957	36.60	31.2	317	15.1
	19,329	31.50	29.5	695	36.0
	19,224	40.20	26.8	575	29.9
	17,982	24.90	35.1	441	24.5
	17,879	56.32	25.1	460	25.7
	17,320	34.30	29.4	773	44.6
	17,178	40.36	27.5	492	28.6
	16,934	34.80	28.4	773	45.7
	16,419	31.20	31.6	1176	71.6
	15,778	50.97	24.2	996	63.1
	15,570	41.40	25.7	1395	89.6
	15,357	26.90	30.4	2073	135.0
	15,101	36.80	27.2	342	22.7
	14,724	39.40	24.5	1268	86.1
	14,713	38.50	29.0	632	43.0
	13,826	41.10	24.1	1062	76.8
	13,760	29.90	29.5	1057	76.8
	12,946	31.30	26.5	960	74.2
	12,504	28.00	28.2	1151	92.1
	12,072	39.50	24.6	837	69.3
	11,608	37.80	25.2	794	68.4
	11,439	31.40	28.8	870	76.1
	10,909	36.10	24.5	917	84.1
	10,846	32.60	26.7	813	75.0
	10,123	37.20	25.3	619	61.2
	9,943	28.40	29.8	692	69.6
	9,824	30.10	33.4	553	56.3
	9,651	42.30	22.9	304	31.5
	9,378	28.00	30.9	577	61.5
	8,771	38.60	25.8	156	17.8
	8,253	30.08	27.0	616	74.6
	7,817	33.90	25.7	472	60.4
	7,109	22.70	34.2	406	57.1
	3,722	26.60	29.6	59	15.9
Mean—	15,198	34.97	29.0	806	55.2
Districts in which bonds passed:					
	29,217	28.54	40.4	180	6.2
	23,292	29.25	32.3	618	26.5
	17,994	37.78	27.5	338	18.8
	17,796	29.80	31.1	220	12.4
	17,578	28.16	35.6	949	54.0
	14,864	34.90	27.7	1513	101.8
	14,642	31.90	29.6	328	22.4
	11,632	31.48	27.5	449	38.6
	11,379	29.80	27.7	379	33.3
	10,971	29.98	27.9	331	30.2
	10,393	30.40	28.9	525	50.5
Mean—	16,342	31.09	30.6	530	35.9

Source: Columns 1, 2, 3 and 4 are from Walter G. Hack, "School District Bond Issues: Implications for Reform in Financing Capital Outlay," *Journal of Education Finance* 2 (Fall 1976), Tables 1 and 2, pp. 159-162. Column 3 is calculated by dividing the sum of state and local current expense revenues by the local tax rate for current expense. Column 4 is calculated by dividing bond value sought by district enrollment.

* Calculated by dividing column 4 by column 1.

comparison of the column means for those districts that sanctioned bonds and those that did not indicates that, on average, property value per pupil was higher among districts that approved bond issues than among those that did not. However, local millage for current operations was lower among districts that passed issues compared with those that did not, although the dollars of current operating expenditures guaranteed per mill of effort were quite similar for both groups. The bond value per pupil was obviously lower, by more than 34 percent, among districts supporting bond issues than among those rejecting them. Similarly, the required millage needed for immediate repayment, a proxy for the tax effects of passing bonds, was lower for districts passing bonds than for those declining them. Districts passing bonds are generally wealthier, in less need of capital funds, spending less for current operations and likely to pay less to meet their capital needs as compared to districts in which bonds failed. This characterization focuses on the averages, some of which are not that statistically different for the two groups.

Dividing all 52 districts at the median to form a low and high group for each column reveals further information. Among districts low in assessed valuation per pupil, 19.2 percent passed bond issues, while among areas high in assessed valuation, 23.1 percent supported bonds. Among all districts that passed bond issues, 73.0 percent asked for less than the median bond value per pupil while among districts in which bonds failed, only 44 percent of the districts sought less than the median bond value per pupil. Twice as great a proportion of districts among those that passed bonds had current millage rates below the median as compared to districts in which bonds were rejected.

Additional patterns appear if one looks only at bond value per pupil and district wealth per pupil. The average bond value per pupil among districts with greater than median wealth was $847, but these districts asked for $636 per pupil, 25 percent below the average. Similarly, the average bond value per pupil among districts with less than the median value wealth was $647 but these districts sought $402 per pupil, 38 percent below the average. The average assessed valuation for districts attempting a high bond level per pupil was $15,674, but districts that requested high bond levels per pupil and passed bonds averaged $18,575, 19 percent above the average. Among districts asking for a low level of bond value per pupil, the average wealth was $15,206 and districts that passed bonds had an average assessed valuation per pupil of $15,503.

Some interactive relationship clearly exists between district wealth and the magnitude of a bond issue sought, both measured on a per pupil basis, that may be related to bond issue outcomes. Wealthy districts may pass larger issues than a less wealthy district, although both will support issues that are low in value relative to all issues sought. Similarly, districts asking for large bond issues need to be relatively wealthy in order to insure passage.

The purpose of modifying state support for capital expenditures is not to pass bond issues, but to make the distribution of funds more sensitive to districts' needs and their ability to meet them. Fiscal neutrality would be satisfied if districts had access to the same revenues at a given level of effort, whether the bond issue that provided the local share of revenues actually passed or not. Another measure of equity, expenditure uniformity, would require that districts with the same need actually spend the same amount of funds to alleviate the needs. Thus, a district must pass bond issues to raise its share of revenues or, more realistically, the state would have to meet facility needs. Whether or not these approaches suit capital outlay and debt service expenditures, current methods that reinforce random or wealth-related responses by districts to their capital needs are neither equitable nor educationally sound.

V. CONCLUSION

Many states currently provide support for the capital expenditures incurred by local school districts, but in most cases, it is distributed without regard for either a district's ability to provide support or the district's capital need. As a result of these distributional inequities, some districts cannot provide adequate facilities for their education programs. Such an inability may have an adverse affect on the education plan itself.

Many issues are involved in financing capital projects. First, it is difficult to anticipate capital needs in advance although several years may be required to construct appropriate facilities. The necessity for new facilities or for renovation is largely due to enrollment shifts within and between districts, despite the general decline in total enrollments. Second, the costs of capital projects differ among school districts due to site purchase, labor, material and interest rate variations, factors over which school districts have no control. The enormous increase in construction costs and the rise in interest rates have exaggerated the variations among districts, making it more and more difficult for some districts to raise required funds relative to other districts. Third, in some districts the voters have been unwilling to pass bonds in order to generate revenue for capital purposes. District characteristics, such as wealth, and the method of state distribution of current or capital expenditures may influence the outcome of bond elections. Fourth, the allocation of aid for capital expenditures may affect the impact of aid distributed for current expenditures. In states that attempt to equalize the burden of current expenditures among school districts, equalization may be thwarted if aid for capital expenditures is not similarly made uniform. Fifth, the system of decentralizing capital expenditures is costly and may be inequitable vis a vis taxpayers. State revenue sources are larger than those of any school district and states often rely on taxes other than property taxes. Thus, states incur lower interest rates than school districts when they borrow money and the tax burden tends to be distributed more progressively. Finally, as in support for current expenditures, local control over capital outlays is a central issue. Even if certain efficiencies accrue from centralized planning and funding, there is still a need to provide facilities that meet local programmatic needs.

In the previous section of this paper three state systems of equalizing capital support were examined. New York's system, which recognizes district wealth, results in relatively small interdistrict revenue-generating disparities. Both Maryland and Florida have designed

systems to assume all capital outlay and debt service costs, although neither plan provides sufficient revenues to local districts. Maryland is seeking appropriate district participation in providing revenues for capital purposes. In Florida, few districts have actually passed bond issues to supplement state support although capital expenditures from current funds are large. Unlike Maryland or New York, Florida has centralized planning and needs assessments and, in addition, provides support for state-owned relocatable facilities, that are moved from one district to another as necessary.

In light of the problems identified and the experiences of the states examined, it is apparent that there are several ways in which states might participate in the funding of local district capital projects. States ought to conduct a census of school facilities on a regular basis, which should indicate the status of available classroom space including its age, condition and the intensity of its use. Classrooms might also be rated in terms of their adaptability to functions other than those for which they were designed and similar facts should also be available for nonclassroom space. In conjunction with a survey of available education facilities, the state should regularly conduct thorough studies of the projected needs for such buildings and should begin with demographic data, including births and migration, but should also include information on the anticipated incidence of special education requirements. States are greatly obliged to enumerate their facility needs for exceptional children, particularly in light of P.L. 94-142 of 1975.

Besides pinpointing critical shortages of educational facilities, states should provide the required facilities. Where building needs appear to be transient, states should provide portable spaces. When a more permanent solution is required, the state should accelerate construction through loans that would efficiently promote building activity when it is needed, while keeping the interest rates relatively low. The state should subsidize, on an equalizing basis, the repayment of loans. In order to equalize debt service payments fully, the state should consider the differential cost of providing similar facilities among districts and adjust its subsidy appropriately. Finally, a state should participate in relieving districts of their current debt service expenditures, with such funds equitably distributed.

A state support system similar to that described above will not deprive local districts of the option to provide appropriate facilities for their particular educational programs. By not fully funding all capital expenditures, the state will incur burdens it can afford, while furnishing incentives for districts to keep their costs down. Thus, both districts and the state, while considering their ability to meet such needs, retain an interest in supplying facilities that serve the needs of children.